

10. Krishi Vigyan Kendra

Training Achievements

Seventy three short duration (1 to 3 days) on campus and off campus training courses were conducted in different disciplines for practicing farmers, rural youth and extension functionaries. In all 1888 participants including 491 SC/ST participants benefited from the training programme conducted by Subject Matter Specialists (SMS) of KVK, as details below;

Disciplines	No. of courses	No. of Participants	SC/ST participants
Crop Production	14	514	96
Horticulture	14	335	67
Plant Protection	15	426	108
Veterinary Sci.	15	321	111
Home Science	15	292	109
Total	73	1888	491

Similarly, 10 sponsored training courses were organized for 1 to 3 days duration in different disciplines viz., Crop Production, Horticulture, Plant Protection, Veterinary Science and Home Science for farmers and extension functionaries deputed by State Agriculture Department of Maharashtra, ATMA, CIPM Nagpur, MAFSU Nagpur, MCED & ICDS Nagpur. In all 376 participants attended these courses.

On Farm Trials for Technology Assessment and Refinement

Technology Assessed

- In order to improve reproductive performance and milk production in cow, KVK assessed the performance of feeding vitamin-mineral mixture @ 30 g/cow/day in the diet of cross bred Jersey cows under stall-fed livestock production system in adopted villages. The result showed significant increase in milk yield from 8.50 to 10.20 l/cow/day, whereas, 100% conception rate, net returns (Rs. 27,860/cow/yr) and B:C ratio (2.60) was observed as compared to conventional practice (without inclusion of mineral mixture and deworming).
- To combat mineral deficiencies and problem of low milk yield in cow, KVK assessed the performance of supplementation of chelated mineral @ 30 g/cow/day in the diet of cross bred jersey cows under stall-fed livestock production system in adopted villages. The results revealed significant increase in milk yield from 8.90 to 10.10 l/cow/day without occurrence of repeat breeding problem with net returns (Rs. 27,180/cow/yr) and BC ratio (2.28) as compared to traditional method of livestock feeding with locally available feeds and fodder.
- Assessment trial was conducted on high yielding variety of Onion (Akola Safed) in Ranmangali and Manori villages on 10 farmer's fields covering four hectare area. An significant increase in yield (20.35%) was recorded over local variety with additional net return of Rs. 9120/- per ha.
- Assessment trial was conducted on Biocontrol of semi-loopers in soybean in villages Pipra and Manori on eight farmer's fields covering an area of 3.2 hectare. Foliar application of *Beauveria bassiana* @ 1.0 kg/ha. followed by

2nd spray of azadiractin 1500 ppm @ 25 ml/10 l of water at ETL reduced the semi-looper population and substantially increase the grain yield by 9.95% over farmer's practices.

- Assessment trial on optimization of plant density in Bt Cotton was conducted on 5 farmer's field with 2.50 hectare area. It was observed that Bt Cotton at plant spacing of 120 cm x 45 cm recorded significantly higher seed cotton yield (2027 kg/ha) as compared to 90 cm x 90 cm and 150 cm x 60 cm plant spacing.
- The newly released variety PKV Tara of pigeon pea was assessed on 5 farmer's fields with an area of 2.50 ha. PKV Tara recorded significantly higher grain yield of 15.10 q/ha than conventional pigeon pea varieties ICP 8863 and BSMR 736.

On Campus Crop Demonstrations : Twenty five crop demonstrations on cotton, pigeonpea, soybean, *Lathyrus sativa*, linseed, fodder Jowar (Maldandi), fodder Maize, berseem, vegetables viz. onion, brinjal, radish etc., fruits and flowers were undertaken on KVK's instructional farm during *kharif* and *rabi* season as well as in technology park. The production and protection technologies of these crops were demonstrated on an area of 0.2 - 0.4 ha for each crop. Large number of farmers, farmwomen and extension functionaries from Nagpur district of Maharashtra and other states visited these demonstrations.

Kisan Mobile Advisory Services (KMAS) : KVK, Nagpur has launched Kisan Mobile Advisory Services (KMAS) for the benefit of the farmers of Nagpur district. Advisory messages on agriculture and allied technologies on the mobiles of the farmers who are registered with KVK are regularly being sent.

Development of KVK's website : Website with domain name: www.kvknagpur.org.in has been developed and launched in January 2011.

Technology Park at KVK : Technology Park has been established in KVK's instructional farm for depicting cropping pattern of Nagpur district. The area of technology park is protected by erecting chain linked fencing around it to safeguard the crops from predators.

Osmanabadi Goat unit : An amount of Rs. 84,138/- generated by selling of 17 Osmanabadi bucks and 26 females to five beneficiaries of Nagpur district. The beneficiary farmers are seeking advisory services through mobile and personal contacts. The Osmanabadi bucks sold to the farmers are bringing about genetic improvement in local goats.

Fruits, Vegetables and flowers demonstration unit : Fruits, vegetables and flowers demonstration units with high yielding varieties and production technology were established for the benefits of farmers and Extension Functionaries. An amount of Rs. 48,603/- was generated by auctioning of guava fruits and selling of vegetables and flowers.

Soil testing at KVK : 75 soil samples from beneficiaries of five tahsils were tested for its PH, EC and major nutrients viz. N,P and K and appropriate recommendations were given to the farmers.

Front Line Demonstrations

Nineteen technologies were demonstrated in the discipline of crop production, plant protection, horticulture, livestock production and home science under Front Line Demonstrations on farmer's field of adopted villages namely Manori, Pipra, Saisar, Ranmangli and Dongargaon. Several

extension activities like field days, field visits of farmers to FLD demonstrations, group discussions, scientists-farmers meet, etc. conducted for effective implementation of FLDs. Data on certain production parameters as well as feedback from farmers and visitors were recorded.

FLD on Crops

Sr. No.	Crop	Technologies Demonstrated	No. of Farmers	Area (ha)	Yield (q/ha)		% Increase over FP
					Demonstration	Farmer's Practice	
1	Cotton	Drip Irrigation	5	2.5	38.6	25.5	51.37
2	Cotton	Plant Spacing	5	2.5	18.70	40.6	28.08
3	Cotton	Pesticide application	5	2.5	14.46	13.0	11.23
4	Cotton	INM	10	4.0	16	13.15	21.67
5	Cotton	Integrated Crop Management	10	4.0	17.2	13.6	26.47
6	Soybean	INM	25	10	22.5	17.5	28.57
7	Wheat	AKW 3722	7	3.0	37.5	30.6	22.54
8	Chickpea	JAKI9218	12	4.8	12.6	10.3	22.33
9	Wheat	RAJ 4037	7	3.0	32.7	27.1	20.66
10	Linseed	NL 260	13	5.2	10	7.3	36.90
11	Cotton	IPM	25	10.0	16.25	13.2	23.12
12	Redgram	Production Technology	30	12.0	16.15	13.17	22.63
13	Chickpea	Production Technology	30	12.0	14.16	10.64	33.08
14	Chickpea	<i>Helicoverpa</i> management	20	8.0	13.75	12.5	10.00
15	Brinjal	Shoot & fruit Borer Management	15	6.0	160	118	35.59
16	Chilly	Thrips Management	15	6.0	110.0	89.5	22.90
17	Tomato	Varietal(PKM-1)	10	4	88.45	75.85	16.61
18	Okra	Varietal(Utkarsha)	10	4	55.5	47.5	16.84
19	Farm women	Drudgery reduction	10	18	47 m ² /h	35 m ² /h	34.20

FLD on Livestock Enterprises

Under Veterinary discipline, three FLDs on 40 cows and 40 local goats were conducted on the farm of 30 farm families in

the villages namely Dongargaon, Tas and Ranmangli. The details are as follows:

Enterprise	Breed	No. of farmers	No. of animals	Performance parameters /indicators	Average yield		% change in the parameter	Cost benefit ratio of demo
					Demo.	Local check		
Dairy farming (Urea treatment of paddy straw)	Jersey Cross	10	20	Av. Milk yield lit/cow/day	6.20	4.20	47.62	1:2.10
Dairy farming (Control of mastitis)	Jersey Cross	10	20	Av. Milk yield lit/cow/day	9.10	6.40	42.19	1:2.30
Goats	Local	10	40	Weight gain Body coat	3.9 kg Healthy & shining	2.4 kg Dull, rough- & alopecia	62.5 -	1: 2.26

Celebration of 'Technology Week' : Technology Week was organized on 14 -19 Feb, 2011 and information of the areas of local importance viz. crop production, crop protection in various cropping system, animal husbandry and drudgery reduction in farm women were especially provided to the farmers. Large number of participation of farmers and

extension workers in villages was ensured through personal invitation.

Organized 'Kisan Mela' : Organized a *Kisan Mela* at village Pipra in Nagpur on February 25, 2011. Dr. G. Malvi, Retd. Professor (Agronomy), Dr. Sharnagat, Retd. Prof. and Head Dept. of Entomology and Dr. Nandanwar, Asso. Prof.

(Entomology) addressed the farmers the pest problems, identification and its management, INM for higher production. More than 200 farmers including cotton, vegetable growers and livestock owners participated and benefited through information provided by the experts. KVK also organized *Krishhi Mela* at Burujwada, tahsil of Saoner on February 17, 2011 and about 100 farmers participated in this mela.

Organized 'Kirtankar Mela' : *Kirtankar Mela* was organized at village Pipra, Tq. Umred, Dist. Nagpur on February 18, 2011 and more than 200 farmers were participated. Dr. Peshkar Retd. Professor (Entomology) demonstrated the farmers on cotton cultivation through his innovative style of *kirtan*.

Health Camps for Livestock: Livestock Treatment and Vaccination camp was organized in Ranmangli village of Bhivapur tahsil on February 21, 2011. More than 200 goats were immunized against *Enterotoxaemia* disease. Allied animals were also treated and recommended medicines for their recovery. More than 15 participants benefited by seeking treatments for their livestock.

Diagnostic Survey : Thirty diagnostic surveys was undertaken in adopted villages and other non adopted villages of Nagpur district and suggest the remedies to overcome specific problems in crops, citrus orchard and animals covering more than 90 ha cropping area and 120 animals in 21 villages of six tahsils of Nagpur district.

Participation in Exhibitions

1. State and National level Agricultural Exhibitions "*Dharmachakra Pravartan Din*" from 16th to 18th October 2010 at *Dikshabhoomi*, Nagpur, organized by Joint Director of Agriculture, Nagpur Division. More than 2500 farmers visited to exhibition stall of KVK during exhibition and many participants actively interacted with resource persons.

2. State level Agricultural Exhibition at RRC, Amravati on the occasion of "Dr. Panjabrao Deshmukh Birth Anniversary" from 27th to 29th October 2010 organized by Dr. PDKV, Akola. More than 30000 farmers visited to stall during exhibition and interacted with technical person present in the stall to get the expert knowledge.

3. "*Rashtriya Kisan Mela-2010*" organized by National Research Centre for Citrus, Nagpur from 4th to 5th March 2011. More than 1000 farmers visited the stall and appreciated the activities of CICR, visitors showed keen interest in Bt. Detection Kit & transgenic Bt. straight varieties of cotton.

4. "Agrovision – 2011" A State level exhibition organized at Reshimbagh Ground, Nagpur from 4th to 7th March 2011.

5. Agri-Expo-Harit Kranti-2010 held, at Baramati Distt. Pune during Nov. 1-4, 2010. The exhibition was inaugurated by Shri Sharad Pawar Hon'ble Union Agriculture Minister, Govt. of India,

Scientific Advisory Committee Meeting : The 15th SAC meeting of KVK Nagpur was conducted on October 27, 2010 under the chairmanship of Director, CICR, Nagpur. More than 15 members from agriculture and allied departments participated in the SAC meeting and assessed the work of KVK and recommended future extension activities of KVK for different crops and livestock.

Recruitment of staff : Three posts i.e. Programme Assistant (Lab Technician), Programme Assistant (Computer) and Driver in KVK were filled up during 2010-11.

Visitors : 971 visitors including practicing farmers, farm women, rural youths and extension functionaries visited the instructional farm, technology park, goat unit, fruit cafeteria and vermicompost unit of KVK, CICR, Nagpur.

